

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

**CORE WIRELESS LICENSING
S.A.R.L.,**

Plaintiff,

VS.

APPLE INC.,

Defendant.

CIVIL ACTION NO. 6:12-CV-100

JURY TRIAL DEMAND

**CORE WIRELESS LICENSING S.A.R.L.'S
OPENING CLAIM CONSTRUCTION BRIEF**

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I. INTRODUCTION

For each of the 25 disputed claim terms, Core Wireless' proposed constructions are consistent with the intrinsic record and should be adopted. Apple's proposed constructions, on the other hand, suffer from a host of problems. For example, in some instances, Apple includes unnecessary language or additional components in the corresponding structures that are not supported by the intrinsic record. Elsewhere, Apple improperly imports limitations from the specification, sometimes reading out the preferred embodiment. For several terms, Apple improperly includes language of the recited function as part of the corresponding structure, and at times it even identifies different components for similar structures. For these reasons, Core Wireless asks the Court to reject Apple's proposals and adopt the proposals of Core Wireless shown in Exhibit 1 of the Joint Claim Construction Statement.

II. BACKGROUND OF THE TECHNOLOGY

The patents at issue all relate to the standardized technology that underlies the basic functional operations of cell phones and other data capable mobile devices. Long before the introduction of Apple's first cellular product, the iPhone in 2007, Nokia had spent decades as an innovator of cellular technology. The patents-in-suit are the result of that legacy work.

In the global cellular system created by Nokia and other early innovators (but not Apple), which is still in use today, there have been four generations of cellular networks, each generation making a massive improvement in speed and bandwidth over the previous generation. The first generation network, called 1G, is now obsolete. The second generation, or 2G, has been replaced in many areas but is still in use. The 2G technology relevant to the patents in this case is called GSM, for Global System for Mobile Communications. Although the use of 2G networks is diminishing, it is still very important that 3G networks be compatible and work with the 2G networks so that cell phones can be used on either network and will remain functional when switching networks. 3G networks have been the dominant networks for several years. The 3G technology relevant to the patents-in-suit is called UMTS, for Universal Mobile

Telecommunications System. The 4G technology, also called LTE, is just now being implemented and is not directly relevant to the issues discussed in this brief.

Cell phones¹ communicate with a base station to send and receive information through the use of radio waves. Base stations are scattered throughout many neighborhoods in equipment sheds attached to large antennas (sometimes disguised as trees or flagpoles for aesthetic reasons) for receiving the radio waves from the cell phones. Coverage areas for a cell phone are referred to as cells, and each cell is served by at least one base station.

Base stations are part of what is called the access network. The access network connects to core networks, which are usually in a separate location, e.g., to connect to land-lines. Traditionally, when a user places a phone call, signals are sent to a base station (in an access network) which connects to a core network that in turn connects to the standard land-line telephone system. When the user sends data signals, for example by looking up a website on a smart phone, signals are sent through the base station and access network to a different core network that is connected to the internet and is responsible for providing data services.

In addition to voice and data transmissions that the user wishes to send and receive, many other signals must also be exchanged between cell phones and networks to enable the system to operate with high performance. For example, both the cell phone and network must operate using the same set of parameters, and they must send and receive other signals, such as information relating to the channel to use for the data transmissions. These are called control signals. Data may be sent on a shared, or common, radio channel, in which case the transmission must wait its turn, or it may be sent on a radio channel that is dedicated to a particular cell phone.

The patents at issue relate to these basic operations. Specific functionality relevant to each patent is described in more detail below.

¹ For simplicity, this brief refers to cell phones, but the patents may use the terms mobile device, mobile unit, UE (User Equipment), Mobile Station (MS), terminal, or other terminology. Additionally, the technology would apply equally to data enabled devices, such as iPads.

III. LEGAL PRINCIPLES

The principles of claim construction are well established. Claim terms are to be given their “ordinary and customary meaning,” as determined by “a person of ordinary skill in the art in question at the time of the invention.”² When construing the claims, the Court first considers intrinsic evidence, including the claims themselves, the remainder of the specification, and the prosecution history.³ However, “the inventor’s lexicography governs”⁴; thus, the patentee is entitled to define claim terms to identify the invention precisely. As such, a claim construction that “excludes the preferred embodiment is rarely, if ever, correct.”⁵ Although this allows the Court to construe claims with guidance from the patent specification,⁶ the Court should not go so far as to write the specification into the claims.⁷ Disclaimers and disavowals that limit the claim terms are valid only if “the patentee has demonstrated a clear intention to limit the claim scope.”⁸

IV. U.S. PATENT 6,792,277 (’277 PATENT)

A. Summary of the Patented Technology

1. Background of the ’277 Technology

In a typical configuration of a modern cell phone network, the access network (which includes the base stations) connects to two core networks. One of the core networks is designed to connect to the telephone land-line system, and the other is designed to connect to the internet. Core networks that route signals to the telephone lines are called circuit-switched, because telephone communications travel through telephone switching circuits. Core networks that route signals to the internet are called packet-switched, because data over the internet are carried in the form of packets and do not go through a fixed set of switching circuits.

² *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc).

³ *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996); *see also Phillips*, 415 F.3d at 1315-17.

⁴ *Phillips*, 415 F.3d at 1316.

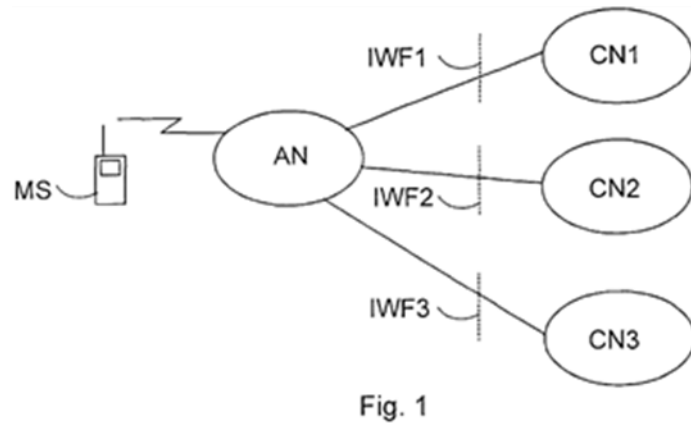
⁵ *Adams Respiratory Therapeutics, Inc. v. Perrigo Co.*, 616 F.3d 1283, 1290 (Fed. Cir. 2010).

⁶ *Phillips*, 415 F.3d at 1317.

⁷ *Id.* at 1322.

⁸ *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004).

An example in figure 1 of the '277 patent shows this arrangement in the case of three, rather than two, core networks. The cell phone, or MS (for mobile station), is connected by the base stations included in the access network (labeled AN) to three core networks, labeled CN1 through CN3.



2. The Invention of the '277 Patent

Cell phones may need to communicate with one core network, and when that communication has been completed, immediately communicate with a different core network. For example, every time a cell phone moves into a new cell area, the cell phone must perform a location update with both core networks, e.g., circuit- and packet-switched core networks. It is important for each of these location updates to be done quickly and efficiently, one right after the other. In the prior art, the connection with one core network had to be released, and a completely new connection was then established with the second core network. That took time and computing resources, caused undesirable signaling load over the radio connection, and was contrary to design objectives. *See* '277 patent, Decl. of D. Hadzibegovic Ex. 1 at 2:36-53.⁹

⁹ Cited exhibits are attached to the Declaration of Dino Hadzibegovic in Support of Core Wireless Licensing S.A.R.L.'s Opening Claim Construction Brief [hereinafter "Decl. of D. Hadzibegovic"]. All terms in dispute belong to seven of the patents-in-suit [Exs. 1-7]. The other seven patents-in-suit [Exs. 8-14] are attached for completeness and compliance with Patent Local Rule 4.5(a).

One of the key concepts of the '277 patent is to maintain a control signaling connection between the access network and the cell phone to allow a new signaling connection with the second core network without going through the reconnection process. *Id.* at 2:62-65. The advantage of the invention is that several successive control signalings can be carried out without releasing and re-establishing the connection between the access network and the cell phone, thereby reducing the amount of signaling over the radio interface. *Id.* at 3:5-13.

There is another distinction between the '277 patent and the prior art. Prior art networks were capable of utilizing a function called "follow on proceed." *Id.* at 7:45. The follow on proceed function enabled the system to maintain a connection between a cell phone and a single core network for successive control signalings. *Id.* at 7:50-58. But in the prior art, this use of the follow on proceed was only used for successive connections with the *same* core network. The '277 patent, for the first time, described and claimed maintaining successive control signalings to *different* core networks, or (as discussed below) to one core network with different services (i.e., circuit- or packet-switched), which was not contemplated in the prior art. *Id.* at 7:59-62.

B. Term 12¹⁰ – "One or More Core Networks"

The term "one or more core networks" is found in independent claims 1 and 27 of the '277 patent and is implicitly present in all the asserted dependent claims. For example, claim 1 recites "carrying out the plurality of control signalings between the terminal [i.e., the cell phone] and *one or more core networks* without releasing a connection for control signalings . . ."

The '277 patent often discusses maintaining a connection between different core networks, or between two core networks. *See, e.g.,* '277 patent, Decl. of D. Hadzibegovic Ex. 1 at 2:42-51. The claims, however, recite "one or more core networks," not "two or more core networks."

¹⁰ For clarity, Core Wireless refers to the terms by the number indicated in Exhibit 1 to the parties' Joint Claim Filing and Prehearing Statement. *See* Dkt. No. 108-1. Note that the parties may supplement this exhibit at the conclusion of the *Markman* briefing.

The specification provides a clear understanding as to why “one or more core networks” was properly recited in the claims. The applicants were using the term “one core network” in a special way – indeed, the specification defines the use of this term specifically. One core network may have more than one service. A service is a portion of a core network that performs, for example, packet-switching or circuit-switching. The invention can be applied to one core network *if* that one core network has two distinct services. This is stated explicitly in the specification. First, the patent says that “[t]he invention can be applied to an access network connected to at least two core networks” *Id.* at 3:66-67. The next paragraph discusses the conditions under which the invention can also apply to a *single* core network:

The invention can also be applied to telecommunication systems with only one core network integrated to be responsible for several different services, such as circuit- and packet-switched connections.

Id. at 4:11-14.

In other words, the invention applies to two or more core networks, or to one core network *if* that core network has at least two services. As the patent explains, “[t]he circuit-switched and packet-switched connections are controlled by different network elements that can thus form, at least in part, *operationally separate core networks . . .*” *Id.* at 2:3-6 (emphasis added). A particular arrangement of circuitry can be called one core network with two services, or it can equivalently be called two core networks. The difference is definitional, not technical. The claim thus covers one core network with more than one service, and it also covers two core networks, each with one service, because the two are technically equivalent.

The proposed construction of the term “one or more core networks” advanced by Core Wireless is taken directly from the definition of that term in the specification. Core Wireless proposes that “one or more core networks” be construed as follows:

In a telecommunication system with only one core network, the one core network is integrated to be responsible for several different services, such as circuit- and packet-switched connections.

This is a nearly verbatim statement of the definition of the term in the specification, making only grammatical modifications. In a telecommunication system with *more* than one

core network, however, the core networks may have a single service, or they may have more than one service.

The case law provides full support for the construction proposed by Core Wireless. First, it is black-letter patent law that an inventor may be his own lexicographer,¹¹ and that is exactly what the applicants did here in the specification at column 4, lines 11-14, when they informed the public that “the invention can also be applied to . . . one core network . . . responsible for several different services.” Second, claims should be read to cover the preferred embodiment,¹² and they should be read to preserve their validity.¹³ The applicants made clear that the advance of the ’277 patent was maintaining a connection between two core networks, or between the different services of one core network, and that this was an advance over the prior art, in which a connection was maintained only with respect to a single service in a single core network.

Apple asks that the term not be construed at all. The mischief with Apple’s so-called “plain meaning” construction is that it could be used by Apple to argue that the claim covers a single core network with a single service. Such a construction would cover an embodiment never described as the invention, and it would negate the applicants’ explicit distinction between the invention and the prior art. That cannot be what the applicants meant when the claims were drafted. To make the applicants’ special use of the term clear, Core Wireless asks the Court to adopt the proposal of Core Wireless.

C. Term 13 – “Control Signalling”

The term “control signaling” is found expressly in claims 1,4,11, 12, and 27 of the ’277 patent. Apple takes this simple and unambiguous term and proposes to import a number of

¹¹ *Phillips*, 415 F.3d at 1316; *see also AIA Eng’g Ltd. v. Magotteaux Int’l S/A*, 657 F.3d 1264, 1276 (Fed. Cir. 2011).

¹² *Synqor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1378-79 (Fed. Circ. 2013) (“A claim construction that ‘excludes the preferred embodiment is rarely, if ever, correct and would require highly persuasive evidentiary support.’”) (citation omitted).

¹³ *Phillips*, 415 F.3d at 1317 (“ambiguity in the claim language should therefore be resolved in a manner that would preserve the patent’s validity.”) (internal citations omitted).

extraneous and unnecessary limitations into the term: “the control messages over a given signalling connection between a terminal and a core network.” To do so would be improper.¹⁴

At this stage in the briefing, Core Wireless does not have a clear explanation of Apple’s arguments for its proposed construction. But we can already see that Apple’s proposed construction is circular because it uses the terms “control” and “signalling” to define the term “control signalling.” That can be of no help to the jury.

The last part of Apple’s proposed construction, “between a terminal and a core network,” cannot be part of the definition because it conflicts with the use of the term in the claims themselves. For example, claim 1 recites “control signalings between the terminal and at least one core network” ’277 patent, Decl. of D. Hadzibegovic Ex. 1 at 12:26-27. Apple’s construction would add a nonsensical redundancy to the use of the term in the claim, i.e., using Apple’s construction would make the claim read “the control messages over a given signalling connection *between a terminal and a core network between the terminal and at least one core network*.” In other places, Apple’s construction is flatly inconsistent with the claim language. For example, claim 1 elsewhere recites “control signalling between the terminal and the *access network* . . . ,” not the “*core network*.” See *id.* at 12:28-29. In this case, Apple’s construction is simply incompatible with the claim language. This illustrates a larger problem with Apple’s proposed construction. When the claim drafters wanted to include the language “between a terminal and at least one core network,” they did so. In some places they did, and in others they did not. See, e.g., *id.* at 12:15, 12:20, 12:23. Apple wishes to add this phrase everywhere the term is used, contrary to the applicants’ explicit expression of their intent on how the term should be used.

There is no need to explain the words “control signalling” to the jury. If the Court thinks those simple words could use some explanation to the jury, Core Wireless suggests the

¹⁴ *Phillips*, 415 F.3d at 1322 (“We acknowledge that the purpose underlying the Texas Digital line of cases—to avoid the danger of reading limitations from the specification into the claim—is sound.”).

construction “message or messages used for control.” This will at least inform the jury that control signalings are messages, and that they are used for control of the cell phone system, which is more than what Apple’s convoluted proposal does, and it has the advantage of being compatible with the patent claims.

D. Terms 14 and 15 – “Carrying Out the Plurality of Control Signalings . . .” and “Transmit[ting] a Request for Maintaining the Connection . . .”

Terms 14 and 15 are relatively lengthy phrases dealing with maintaining a connection between the cell phone and the access network. Term 14 is found in claim 1 of the ’277 patent, and Term 15 in claims 4 and 27.

There is no dispute about the meaning of the words in terms 14 and 15. The dispute is what those terms do *not* mean. Apple asks for a negative limitation that these steps are performed without the use of something called a “follow on proceed.” However, absent an “express disclaimer or independent lexicography in the written description,” not present here, there is no justification for imposing such a negative limitation.¹⁵

Apple appears to contend that the use of the “follow on proceed” was disclaimed in the specification of the ’277 patent, specifically at column 7, beginning at line 45. Apple misreads this section of the patent. It does not disclaim the use of the follow on proceed function generally, but merely says that the function as it was used in the prior art is not the invention. Core Wireless asks that the Court reject Apple’s proposed negative limitation, leaving the terms to be understood by their plain meaning.¹⁶

¹⁵ *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003); *see also Apple Inc. v. Samsung Elecs. Co.*, No.12-cv-00630, 2013 U.S. Dist. LEXIS 53415, at *79-85 (N.D. Cal. Apr. 10, 2013) (rejecting Apple’s attempt to impose negative limitation not supported by the intrinsic record).

¹⁶ Although infringement is not relevant to the claim construction inquiry, to give the Court context regarding this dispute, we note that Apple is attempting to find a general disclaimer of the use of the follow on proceed function because the portion of the 3GPP standard cited by Core Wireless to show infringement includes, among a number of other things, the use of follow on proceed.

The section of the specification cited by Apple in support of its construction contains a description of the prior art. In that section, the applicants acknowledge that the prior art GSM system had the ability to maintain a connection to a single core network after a location update was transmitted so that other control signaling could immediately follow. *See* '277 patent, Decl. of D. Hadzibegovic Ex. 1 at 7:46-50. This was done by setting a special “follow on proceed” bit for indicating the request for maintaining the radio connection. *Id.* at 7:51-53.

Apple appears to focus on the following single sentence in the specification and ignores the rest of the passage: “The ‘follow on proceed’ function is not, however, suitable to be generally used for implementing several control signalings, least of all if the control signalings are directed to different core networks.” *Id.* at 7:59-60. Apple takes this as a blanket disclaimer of any use of a follow on proceed function or bit in the invention. Apple significantly overstates the meaning of this single sentence. When read in the context of the previous paragraph, the applicants are simply stating that the follow on proceed function, as used in the prior art to maintain a connection to a single core network in the context of a location updating request, is not the invention of the '277 patent. There is nothing in the cited passage that states or suggests that any use of the follow on proceed in conjunction with other novel aspects of the invention is categorically outside the scope of the invention.

To be effective, a disclaimer must be clear and unambiguous.¹⁷ The purported disclaimer Apple points to is at best unclear and ambiguous. A disclaimer of claim scope does not arise from simply discussing drawbacks of the prior art.¹⁸

¹⁷ *See e.g., Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002) (“claim terms take on their ordinary and accustomed meanings unless the patentee demonstrated an intent to deviate from the ordinary and accustomed meaning of a claim term by redefining the term or by characterizing the invention in the intrinsic record using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.”);

¹⁸ *Am. Med. Sys. v. Biolitec, Inc.*, 618 F.3d 1354 (Fed. Cir. 2010) (specification discussing drawback of prior art “falls far short of making clear that the invention does not include a particular feature...and does not rise to the level of a disclaimer”) (citations and internal marks omitted); *Ventana Med. Sys. v. Biogenex Labs., Inc.*, 473 F.3d 1173 (Fed. Cir. 2006) (“general statements by the inventors indicating that the invention is intended to improve upon prior art ...

The '277 patent makes clear that using follow on proceed to maintain a connection with a single core network (with only one service) in the context of a location updating request is in the prior art and is not suitable for the invention. But a novel method of maintaining a connection between multiple core networks or services that happens to use follow on proceed in a different and novel way and as one part of the invention is not excluded.¹⁹

E. Term 16 – “Means for Carrying Out Control Signallings in a Telecommunication System Via an Access Network to One or More Core Networks”

The parties agree on the function of the means-plus function term in claim 27, and only disagree as to the corresponding structure. Apple contends that the structure is a general purpose microprocessor programmed in accordance with Figures 4 and 5 of the '277 patent. That cannot be correct, first, because a means for carrying out any radio signals, including control signaling, cannot be performed by a microprocessor alone. Several other components in a mobile phone apparatus are essential for it to carry out control signals with the network over the air – for example, the antenna, the amplifier, the radio transceiver, and other radio components.

Second, Apple's cited Figures 4 and 5 cannot be the corresponding structure, because most of the steps in the figures are not performed by the cell phone or anything in the cell phone. Claim 27 covers a “terminal,” which is another way of saying “cell phone.” It therefore cannot cover steps done by the “RAN,” “CN1,” “CN2,” “RNC,” “MSC,” or “SGSN” pictured in Figures 4 and 5, because they are all components of the cellular *network*, not the cell phone.²⁰ The Court

without more, will not be interpreted to disclaim every feature of every prior art device discussed”)

¹⁹ See *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d at 1323 (Fed. Cir. 2003).

²⁰ RAN stands for Radio Access Network, which includes base stations; CN1 and CN2 are core networks 1 and 2; RNC is a Radio Network Controller and is part of the access network; MSC is a mobile switching center, which is another name for a type of core network, and SGSN is a Serving GPRS Support Node, which is another name for a type of core network.

should instead accept the proposals of Core Wireless, which are limited to the steps actually performed by the cell phone.

V. U.S. PATENTS 7,383,022 ('022 PATENT) AND 7,599,664 ('664 PATENT)

A. Summary of the Patented Technology

The cell phone network sends signals and data to the cell phone. The cell phone measures the received data and signals to determine any degradation in link quality because of potential problems in the communication channel. These problems include loss of signal, the signal bouncing off buildings and other objects which creates confusing multiple signals, and interference from unrelated signals and noise, etc. '022 Patent, Decl. of D. Hadzibegovic Ex. 2 at 4:23-32. A cell phone collects a number of these link quality measurements together and sends back to the network an indication of signal quality. Movement of the cell phone itself can also affect signal quality. Rapid and large changes in the signal quality can occur, for example, when the cell phone is moving rapidly. *Id.* at 3:65-4:3. If the cell phone is stationary, however, its signal quality can remain more consistent. *Id.*

The '022 and '664 patents disclose an innovative way of filtering the cell phone signal quality measurements, so that, for example, the measurement report representing measurements over a shorter period of time will be transmitted for a fast-moving cell phone, while the measurement report representing measurements over a longer period of time will be sent for a stationary cell phone. *Id.* at 3:65-4:7, 6:47-59. This is done by means of a “forgetting factor,” which essentially causes the cell phone to “forget” all but the most recent measurements when appropriate, but can be modified for each cell phone in a given area to remember and send measurements over a longer period of time when needed. *Id.*

B. Terms 23 a-d – “Modify[ing] the Default Forgetting Factor”

First, Apple proposes no construction whatsoever for four of the five words in this term that appear to have the most technical significance – “the default forgetting factor.” Apple merely repeats those words in its proposed construction. Apple defines only the single

remaining word – “modifying” – a word that is easily understood by any lay juror and requires no construction. Indeed, Apple finds it necessary to use 23 *words* to define this single word: “adjusting upwards or downwards by an amount determined by the application of a mathematical computation based on the received indication of signal quality.”

Apple’s proposal to add the phrase “amount determined by the application of a mathematical computation” relies only on extrinsic evidence and is not supported by the claim language, specification or the prosecution history.²¹ In particular, nowhere do the claims, specification, or prosecution history use those words. In addition, the rest of Apple’s definition improperly imports limitations from the specification into the claim.²² The language “by weighting or adjusting the default value of [forgetting factor] upwards or downwards as a function ...,” is used in describing the preferred embodiment, and should not be a claim limitation. ’022 patent, Decl. of D. Hadzibegovic Ex. 2 at 6:49-54. Finally, adopting Apple’s construction would make the actual claims incomprehensible by the addition of unsupported, repetitive language. For example, under Apple’s construction, the claim element 19(c) of the ’022 patent would be interpreted as, “adjusting the default forgetting factor upwards or downwards by an amount determined by the application of a mathematical computation ***based on the received indication of signal quality*** to set a finite length of a filter ***as a function of the received indication of signal quality***.”

Apple is not attempting to make the disputed term any more clear or more understandable to the jury because there is nothing unclear about the word “modify[ing],” and there is nothing in the intrinsic evidence that limits the word to anything other than its plain meaning. Instead, Apple is making a transparent attempt to import improper limitations into the claim, presumably

²¹ *Phillips*, 415 F.3d at 1318-19.

²² *Id.* at 1323.

to create a non-infringement argument where none exists.²³ Accordingly, this term need not be construed and should be given its plain and ordinary meaning.

In the alternative, should the Court require a construction, Core Wireless proposes that the term “modifying the default forgetting factor” be construed as “changing the default forgetting factor.” The three different dictionaries provided by Core Wireless all show that “to modify” something means “to change” it. *See* Decl. of D. Hadzibegovic Ex. 15 at CORE_A-0189749; Decl. of D. Hadzibegovic Ex. 16 at CORE_A-0189767; Decl. of D. Hadzibegovic Ex. 17 at CORE_A-0189770.

C. Terms 24 a-e – “[Calculate/calculating] [a/the] Default Forgetting Factor Based on a Parameter Received”

Again, Apple makes no attempt to define the words “default forgetting factor” (but merely repeats those words in its proposed construction) and reserves all its efforts to impose an unsupported meaning on the easily understood word “calculating.” Apple’s proposal to change the term “calculating” to “computing via a mathematical operation” relies only on extrinsic evidence and is not required by the claim language, specification or the prosecution history.²⁴ In particular, nowhere do the claims, specification, or prosecution history use the words “mathematical operation.” In addition, changing the term “calculating” to “computing” adds nothing to the ordinary meaning of the term.²⁵ In fact, the terms are used interchangeably in the specification. *See, e.g.*, ’022 patent, Decl. of D. Hadzibegovic Ex. 2 at 3:25-38, 6:47-7:3, 7:7-21. Accordingly, this term need not be construed and should be given its plain and ordinary meaning.

In the alternative, should the Court require a construction, Core Wireless proposes that the term “calculating a default forgetting factor based on a parameter received” be construed as “calculating a default forgetting factor using a received parameter as input.” Although Core

²³ *See EON Corp. IP Holdings, LLC v. Landis+Gyr Inc.*, No. 6:11-cv-0015-LED-JDL, 2012 U.S. Dist. LEXIS 165790, at *36 (E.D. Tex. Nov. 20, 2012).

²⁴ *Phillips*, 415 F.3d at 1318-19.

²⁵ *See Id.* at 1314; *EON Corp.*, 2012 U.S. Dist. LEXIS 165790, at *29-31, *34-36.

Wireless does not see any particular advantage to replacing the claim words “based on a parameter received” with Apple’s proposed “using a received parameter as input,” Core Wireless does not object to Apple’s proposal to use this phrase since the specification shows that the “received parameter” is used as an input in the calculation of the default forgetting factor. *See, e.g.,* ’022 patent, Decl. of D. Hadzibegovic Ex. 2 at 3:25-38, 6:47-7:3, 7:7-21.

VI. U.S. PATENT 6,978,143 (’143 PATENT)

A. Summary of the Patented Technology

The ’143 patent discloses and claims a novel and more efficient way of transferring packet data between a cell phone and a network in a cellular system. *See* ’143 patent, Decl. of D. Hadzibegovic Ex. 4 at 1:11-17. Data from a cell phone can be sent to the network in two ways: by means of a common channel shared by all cell phones in the cell, or a dedicated channel for a particular cell phone. *See Id.* at 1:65-2:4. In general, it is preferable to use a dedicated channel when the amount of data sent to a particular cell phone is large. In that case, using a common channel that is shared by many cell phones might become so busy that it would not be able to service properly other cell phones.

In the prior art, the cell phone was not involved in the decision regarding what channel to select. This was not efficient, because the network alone had no information about the packets that the cell phone needed to send to the network and whether a common or dedicated channel was more advantageous. *Id.* at 3:41-43. It required substantial transfer of information between the network and the cell phone for the cell phone to provide the needed information and for the network to use that information to allocate a channel and convey the necessary information about the channel to the cell phone, which used up traffic capacity. *Id.* at 3:43-48.

The ’143 patent provides for a different way of arriving at the decision to select a common or a dedicated channel. First, the network sends a threshold value of a channel selection parameter to the cell phone. *Id.* at 3:53-56. The channel selection parameter can be chosen to be one of a variety of parameters, including the size of the data packet to be sent, the amount of data to be transferred, or other parameters. *Id.* at 4:1-12. Next, the cell phone

compares the current value of the channel selection parameter with the threshold value of the parameter sent from the network and makes a determination whether the threshold is met. *Id.* at 6:23-26. The threshold determination is then used as a basis to determine if the packets should be sent using a common or a dedicated channel. *Id.* at 6:26-36. For example, a dedicated channel to a single cell phone might be chosen if the amount of data to be sent is large and would be difficult to send on a common channel that is shared among many cell phones. This novel procedure decreases the signal traffic between a cell phone and a network and minimizes the initial delay associated with starting a data transfer from the cell phone to the network. *Id.* at 3:64-66.

B. Terms of the '143 Patent

The parties agree that 35 U.S.C. §112, ¶6 governs the six terms in dispute. The parties agree on the recited functions for the terms, but disagree on the corresponding structures.

The Court should adopt Core Wireless' structures for these six means plus function terms, because (1) Apple is improperly importing limitations from the dependent claims into the independent claim thus violating the doctrine of claim differentiation; (2) Apple is inconsistently identifying different components for similar structures; (3) Apple is unnecessarily including language of the recited function as part of the corresponding structure; and (4) Apple is including additional language in the corresponding structures that is not supported by the claim language, specification or the prosecution history.

1. Terms 17 and 20 - Apple Is Improperly Adding Limitations from the Dependent Claim 18 into the Independent Claim 17

Apple is improperly attempting to add a limitation that the channel selection be done in the mobile station to the corresponding structures for "means for sending" (disputed term No. 17), and "means for comparing" (disputed term No. 20) in the independent claim 17. In particular, Apple attempts to include the language "*according to the channel selection performed in the mobile,*" to the structure for "means for sending" (disputed term No. 17), and

the language “*a channel selection function within the mobile station*” to the structure for “means for comparing” (disputed term No. 20).

Claim 17: A mobile station connected with a cellular system, comprising means for sending uplink packet data to the system using a selected channel, wherein the selected channel is either a common channel (RACH) or a dedicated channel (DCH), characterized in that it also comprises:

- means for receiving a threshold value of a channel selection parameter from the system,
- means for storing said threshold value of the channel selection parameter, and
- means for comparing said threshold value of the channel selection parameter to a current value of the channel selection parameter for basis of said channel selection.

Claim 18: A mobile station according to claim 17, characterized in that it further comprises:

- means for making said channel selection on the basis of the result of said comparison.

¹⁴³ patent, Decl. of D. Hadzibegovic Ex. 4 at 9:5-20.

Claim 18 has one limitation – means for making said channel selection – that is not present in the claim 17. The “means for comparing ...” from claim 17 uses the result of the comparison as a *basis for channel selection*, but where the channel selection is performed is not explicitly recited in claim 17. Claim 18, on the other hand, specifically lists “means for making said channel selection,” in order to be distinguished from claim 17. The presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.²⁶ In fact, the “making of the channel selection” is the only meaningful difference between the independent claim 17 and the dependent claim 18, and thus should not be read into the independent claim 17.²⁷ Therefore, Apple’s limitation that the

²⁶ *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004).

²⁷ *See id.*; *see also Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302-03 (Fed. Cir. 2003) (the presumption that an independent claim does not have a limitation that is introduced for the first time in a dependent claim “is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is

channel selection be performed in the mobile station should not be a part of the identified structures for “means for sending” and “means for comparing” in independent claim 17.

In addition, by adding this extra limitation to the elements of independent claim 17, Apple invites the Court to commit reversible error. The law is clear that a court errs by “defining a claimed function to require more than is actually claimed,” and a court “cannot require the structure in the accused device to perform functions that are not present in the claim.”²⁸

2. Terms 17 and 18 – Apple Inconsistently Identifies Different Components as Part of its Proposed Structures

First, Apple inconsistently identifies different components for *receiving* and *sending* as part of its proposed structure. For the “means for receiving” claim term (disputed term No. 18), Apple agrees with Core Wireless and correctly identifies five different components as parts of the corresponding structure: “an antenna 801,” “switch 802,” “control unit 803,” “RF receiver 811,” and “detection demodulator 812.” For the “means for sending...” claim term (disputed term No. 17), however, Apple only identifies one component – the “control unit 203” – instead of correctly and consistently identifying the following five components: “an antenna 801,” “switch 802,” “control unit 803,” “RF receiver 811,” and “detection demodulator 812.” Apple’s position is inconsistent because “means for sending” and “means for receiving” have structures that correspond to each other functionally, and the structures for both should include the corresponding components. In order to send and receive packets between a mobile station and a network, more than just a control unit is necessary. For example, in addition to a control unit, at

urging that the limitation in the dependent claim should be read into the independent claim”); *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001) (“Claim differentiation ... is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims.”).

²⁸ *Applied Med. Res. Corp. v. United States Surgical Corp.*, 312 Fed. Appx. 326, 332 (Fed. Cir. 2009) (unpublished) (citations omitted).

least a transmitter/receiver, an antenna and a switch are necessary. Thus, the Court should adopt as corresponding structure the components identified by Core Wireless.

3. All Disputed Terms in the '143 Patent – Apple Is Unnecessarily Including Language of the Recited Function as Part of the Corresponding Structures

Apple is unnecessarily including language of the recited function as part of the corresponding structure for each of the six terms in dispute. For example, both parties agree that the recited function for the “means for sending...” is “sending uplink packet data to the system using a selected channel,” (disputed term No. 17), and that the recited function for the “means for receiving...” is “receiving a threshold value of a channel selection parameter from the system” (disputed term No. 18).²⁹ Since the functions have been identified and agreed on by the parties, there is no need to repeat or rephrase the function in the corresponding structure. Accordingly, the language of the recited function should not be included in the corresponding structures for any of the disputed terms.

4. All Disputed Terms in the '143 Patent – Apple Is Including Additional Language in the Corresponding Structures That Is Not Supported by the Claim Language, Specification or the Prosecution History

In the disputed terms, Apple proposes language in the corresponding structures of the following type: a structure “is programmed” to perform an action “in accordance with the algorithms described” in a cited portion of the specification. *See, e.g.*, term 21 (“A control unit 803” that “is programmed to make the channel selection in accordance with the algorithm described in 6:22-47 . . .”) (similar language occurs in the other disputed terms).

In making these proposals, Apple appears to be invoking *WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339 (Fed. Cir. 1999), which holds that the corresponding structure in the case of a general purpose computer or microprocessor includes the disclosed

²⁹ Parties also agree on the recited functions for the rest of the disputed means plus function claim terms. (*See* disputed terms Nos. 19-22).

algorithms.³⁰ This holding is inapplicable to these terms because Apple has made no showing that the disclosed processor (the “control unit” in the case of term 21) is a general purpose computer/processor. In fact, processors of the type disclosed in the specifications of the asserted patents are specially designed for use in a cell phone, and are not general purpose processors.

Even if the disclosed processor were held to be a general purpose processor, however, the holding of *WMS Gaming* would not be applicable here. In a case decided after *WMS Gaming*, the Federal Circuit held that when a means-plus-function term does not recite a specific function that would need to be implemented by a computer programmed for a special purpose, there is no need to identify algorithms or any structure other than the processor itself.³¹ Examples of such non-specific functions that did not require identifying algorithms included “processing,” “receiving,” and “storing.”³² These examples are identical or very similar to the functions of the means elements of the disputed terms of the ‘143 patent, which include “receiving,” “sending,” “storing,” and “comparing.” It is therefore not necessary for the Court to identify algorithms for these corresponding structures. Identification of the processor is sufficient structure.

For the “means for calculating a value corresponding to the channel selection parameter on the basis of the parameters of the data packet to be sent” (disputed term No. 22), Apple is again trying to impose an unsupported meaning on the easily understood word “calculating.” The term “calculating” has a well-understood plain and ordinary meaning to one of ordinary skill in the art and requires no construction. Apple proposes to change the term “calculating” to “computing via a mathematical operation” which places unsupported and improper limitations

³⁰ *Id.* at 1348 (“A general purpose computer, or microprocessor, programmed to carry out an algorithm creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions”) (internal citations omitted).

³¹ *In re Katz Interactive Call Processing Patent Litigation*, 639, F.3d 1503, 1316 (Fed. Cir. 2011) (“‘processing,’ ‘receiving,’ ‘and ‘storing’ . . . can be achieved by any general purpose computer without special programming. As such, it was not necessary to disclose more structure than the general purpose processor that performs those functions.”).

³² *Id.*

on the asserted claim of the '143 patent not required by the claim language, specification or the prosecution history.³³ In addition, changing the term “calculating” to “computing” adds nothing to the ordinary meaning of the term. Accordingly, the term “calculating” need not be construed and should be given its plain and ordinary meaning.

VII. US PATENT 6,788,959 ('959 PATENT)

A. Summary of the Patented Technology

Over the last decades, as cellular technology has advanced (in the absence of any development work done by Apple), network systems and cell phones have evolved from operating with GSM (or 2G) standards to faster, more efficient UMTS (or 3G) standards. In all of these systems, to ensure appropriate communications between the cell phone (or other mobile data device) and network, a number of parameters must be configured properly on both ends. As an example, both network and cell phone need to communicate using the same timing for sending packets. *See* '959 patent, Decl. of D. Hadzibegovic Ex. 5 at 6:14-33. Some of these parameters are hardcoded into the cell phone, that is, they are “static.” *Id.* at 1:31-336. In UMTS systems, there are a greater number of parameters and different possible configurations than there are or were in GSM systems. To allow increased flexibility, the network can define configurations dynamically instead of relying on hardcoded, static configuration parameters. *Id.* at 1:43-52.

A UMTS enabled cell phone must be capable of determining which configurations are used by the UMTS system; likewise, the network must be able to determine if the cell phone is capable of using dynamic configurations. One aspect of the '959 Patent discloses a way for the cell phone to receive dynamic configurations that may be used in the UMTS system. This may be particularly important, for example, when a mobile station switches from one system to another, such as from GSM to a UMTS system. *Id.* at 1:22-31. Information about such configurations is signaled by the network to the cell phone through a System Information (SI)

³³ *Phillips*, 415 F.3d at 1318-19.

broadcast that occurs on a common channel sent to all cell phones in the cell area. *See id.* at 5:17-18, 7:9-12, 1:66-2:1.

B. Term 9 – “Dynamic Configurations”

Core’s Proposed Construction	Apple’s Proposed Construction
Predefined configurations communicated to the mobile station on System Information Block (SIB) type 16. ³⁴	Configurations provided at or near the time of handover.

The term “dynamic configuration(s)” appears in all of the independent claims as well as several dependent claims of the ’959 Patent. Dynamic configuration parameter values are sent from the network to the cell phone on a broadcast channel. *See* ’959 Patent, Decl. of D. Hadzibegovic Ex. 5 at 7:9-12.

The ’959 patent provides a clear definition for the term “dynamic configurations”: “System Information Block (SIB) type 16 *defines* dynamic configurations, which are referred to as predefined configurations in section 13.7 of TS25.331... [of the cellular standard].” *Id.* at 1:66-2:1 (emphasis added). An inventor can choose to define claim terms in the specification.³⁵ That is exactly what the inventors of the ’959 patent did in this sentence – they have defined dynamic configurations as those predefined configurations that are sent in a particular broadcast message from the network that the cellular standard calls System Information Block 16. System Information Block (or SIB) 16 is a well-known set of parameters that is fully described in the various cellular standards documents and would be well understood by one of ordinary skill in the art reading the ’959 patent. Accordingly, Core Wireless’ construction accurately reflects the definition of the term disclosed in the patent specification.

In its proposed construction, Apple ignores the unambiguous defining language at 1:66-2:1 and instead appears to rely on the following sentence:

Unlike for static preconfigurations, the sets of preconfiguration parameters making up a dynamic configuration . . . must be provided

³⁴ This construction differs slightly from that identified by Core Wireless in the parties’ initial Joint Claim Construction and Prehearing Statement.

³⁵ *Phillips*, 415 F.3d at 1316.

to the mobile station dynamically, i.e., at or near the time of handover of the mobile station from GSM to UTRAN.

'959 patent, Decl. of D. Hadzibegovic Ex. 5 at 1:53-58.

This statement merely describes a particular time period when dynamic configurations are sent to the mobile station. This is not a definition of the term; it is merely a description of an attribute of dynamic configurations. More fundamentally, Apple's proposal is an incorrect definition of the term. Apple contends that the above sentence supports its definition that "dynamic configurations" are "provided at or near the time of handover." Because Apple has made this into a definition, it implies that "dynamic configurations" can *only* be provided at or near the time of handover, and not at some other time as well. There is nothing in the cited portion of the specification that says this. In fact, the sending of SIB 16 (which the patent defines as dynamic configurations in the next paragraph) is not so limited.³⁶ By turning a descriptive sentence into a definition, Apple introduces a limitation that is simply not present in the specification.

C. Term 10 – "Means (56) for Receiving..."

In this means plus function term, the parties agree on the function. The only disputed issue is whether or not to include the antenna and the individual components (receiver 53 and decoder 54) of the "receiver/decoder 56" in the corresponding structure. First, reference characters, such as "(56)," enclosed in parenthesis have no effect on the scope of the claims.³⁷ Because receiver/decoder 56 encompasses receiver 53 and decoder 54, each of these individual components also comprise corresponding structures. Further, as shown in Figure 5, and described in the patent, the antenna is part of the structure involved in receiving the broadcast control signal. '959 patent, Decl. of D. Hadzibegovic Ex. 5 at 13:12. Accordingly, the structures

³⁶ SIB 16 is a broadcast message that is sent to many cell phones at the same time, some of which may be undergoing handover, while others may not.

³⁷ MPEP 608.01(m) ("The use of reference characters is to be considered as having no effect on the scope of the claims."); *see also EasyCare, Inc. v. Lander Indus.*, No. 4:08-CV-00665, 2011 U.S. Dist. LEXIS 130241 at *28 (D. Ariz. Nov. 8, 2011).

disclosed by Core Wireless are appropriate whereas Apple's proposed construction reads out structures.

D. Term 11 – “Means (55), Responsive to the Error Check...”

Here, again, the parties agree on the functions recited in this claim term but disagree on the corresponding structure. First, the term describes a means for “reading any dynamic configuration indicated by the broadcast control signal.” As indicated in the patent, decoder 54 is the structure used “for decoding [reading] the received signal.” *Id.* at 13:16-17; *see also id.* at 13:33. Apple's proposed construction offers no structure that performs this function.

Next, the means for “waiting until a predetermined time and then activating the means for receiving” is the controller/timer 55. *See id.* at 13:24-38. Apple also identifies this structure, but then takes language from what the parties agree is the corresponding function of the term and rephrases it as part of the corresponding structure. The corresponding function and corresponding structure are distinct and separate parts of a means-plus-function limitation, and it is improper to conflate the two as Apple has done.³⁸ All of the unnecessary verbiage that Apple offers beyond the identification of the corresponding structure should be rejected.

VIII. US PATENT 6,674,860 ('860 PATENT)

A. Summary of the Patented Technology

The '860 patent deals with encryption of information related to a service provided to a cell phone. The primary example of a service in the '860 patent is location assistance services, although the patent claims are not limited to this example. *See, e.g.* '860 Patent, Decl. of D. Hadzibegovic Ex. 6 at 1:5-9, 9:47-59. Location assistance services may need to be encrypted so that the customer can be charged for the service and because the service may contain confidential information of the cell phone system operator. *Id.* at 4:16-56, 6:57-563. The '860 patent

³⁸ *Applied Med. Res. Corp.*, 312 Fed. Appx. at 332.

discloses an advantageous way for a mobile station to receive decryption keys to decrypt the service information.

Ten means plus function terms are in dispute, with eight distinct constructions. The terms in dispute are found in claims 9 and 12-15. Claim 9 is directed at a mobile station where decryption may be performed either in an intelligent module, or elsewhere in the cell phone. Claims 12-15 are directed to what the patent calls an intelligent module, one example of which is a SIM card that is found in many cell phones. For a number of terms, Apple identifies a single corresponding structure while ignoring structures from alternative embodiments discussed in the patent. Elsewhere, Apple reads in unnecessary limitations. The Court should not accept either of these errors in claim construction.

B. Terms 4-8 – SIM vs. Intelligent Module

The patent refers to an “intelligent module” where decryption can advantageously take place. *See, e.g.*, ’860 patent, Decl. of D. Hadzibegovic Ex. 6, at claims 12-15; 6:57-63. The patent makes clear that the term “intelligent module” encompasses at least smart cards and SIM cards. *See, id.* at 3:66-4:3 (“decryption advantageously takes place in an intelligent module (say smart card)”), 8:50 (“an intelligent module SIM”). Apple wishes to limit the intelligent module to a SIM card. While one preferred embodiment for the intelligent module is a SIM, it is well established that claim terms are not limited to their preferred embodiment.³⁹ Indeed, absent a “crystal clear [statement by the patentee] that a particular (*i.e.*, narrow) understanding of a claim term is an ‘essential element’” of the invention, the claim should not be so limited.⁴⁰ Proposed constructions for terms 4, 5, 6, 7, and 8, deal with this disputed issue. Core Wireless’ construction (“intelligent module (such as a smart card or SIM)”) stays true to the patent

³⁹ *Phillips*, 415 F.3d at 1323.

language and specification while Apple takes an improperly narrow reading of the term by limiting the structures to a SIM.

C. Terms 1, 3 – “Means for Receiving...” of Claim 9

The means for receiving described in terms 1 and 3 are sufficiently similar that they can be discussed together. Core Wireless identifies the appropriate components used for *receiving*. See '860 patent, Decl. of D. Hadzibegovic Ex. 6 at 8:15-19, Fig. 9. Apple agrees with Core Wireless's proposed structures, but adds additional structures that do not perform the function of receiving, but instead perform functions of *demodulating* (detection [de]modulator⁴¹), *decoding* (decoding block) and *processing* (control unit). See *id.* at 8:19-27. Because these terms are not linked to the claimed function, they are not “corresponding structures.”⁴² Further, Apple's proposed language that the control unit be programmed in accordance with particular figures is unnecessary, because the control unit is improper structure, algorithms do not need to be identified,⁴³ and because this is yet another inappropriate narrowing construction. Moreover, even if the Court agreed that the control unit were proper structure, the figures Apple points to are not the corresponding structure. For example, although claim 9 is directed to a “mobile station” (i.e., a cell phone), Figure 6 shows actions performed by the *network*, not the cell phone.

⁴⁰ *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 993 (Fed. Cir. 1999).

⁴¹ Apple's construction states “detection modulator” which Core Wireless presumes is a typographical error.

⁴² See *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1370 (Fed. Cir. 2001) (“Structural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations.”); *JVW Enters. v. Interact Accessories, Inc.*, 424 F.3d 1324 (Fed. Cir. 2005) (“the specification must clearly associate the structure with performance of the function”) (citation omitted).

⁴³ *Sipco, LLC v. Abb, Inc.*, No. 6:11-CV-0048, 2012 U.S. Dist. LEXIS 106659, at *91 (E.D. Tex. July 30, 2012) (J. Love) (“it cannot be the case that all structures that include general purpose computer **components** are, in fact, general purpose computers as contemplated by *Aristocrat* and *WMS Gaming*.”) (emphasis in original)

D. Term 2 – “Means for Decrypting...” of Claim 9

Apple argues that the only corresponding structure to the “means for decrypting” limitation is an encryption block in the intelligent module. Apple’s argument is directly contradicted by the specification, which states specifically that decryption can be done in the intelligent module, or it “can also be realized elsewhere in the mobile station.” *Id.* at 6:57-63. In fact, the patent describes three structures that can perform decryption: First, the intelligent module, which Apple acknowledges is a corresponding structure; second, the control unit 903, *id.* at 8:25-27 (the decryption key is “processed in a control unit 903”), third, logical blocks 312-314, *id.* at 6:57-63, Fig. 3.

E. Terms 4, 6 and 7 – Logical Block Embodiments

Another dispute between the parties exists for the intelligent module claims relating to the “means for receiving... decryption key(s)...” (terms 6-7) and for receiving the “encrypted information” (term 4). The parties largely agree on the first structure proposed by Core Wireless, bus adapter DATA-I/O 120. However, Apple’s definition reads out the alternative structure disclosed in the patent. Indeed, logical blocks 312-314, as shown in Figure 3, receive decryption keys and the signal information from the mobile station. *Id.* at 6:37-61. These blocks may be found in the intelligent module. *Id.* at 6:59-61.

F. Term 8 – “Means for Calculating...” of claim 15

Logical block 312, which may reside in the intelligent module, is the structure used to “calculate[] the mobile station’s location coordinates.” *Id.* at 6:41-42, 6:57-61. Core Wireless’ construction is consistent with the patent’s specification. Apple’s definition includes unnecessary verbiage and structure.

IX. U.S. PATENT NO. 7,804,850 ('850 PATENT)

A. Summary of the Patented Technology

Communications from a cell phone to the network (called “uplink” transmissions) can occur in at least two ways. First, the network may give the cell phone permission to use radio resources to transmit data at certain times. Alternatively, it is possible for the cell phone to communicate to the network without getting permission from the network. This is called autonomous transmission. *See* '850 patent, Decl. of D. Hadzibegovic Ex. 7 at 1:31- 34. For the network receiving the signals, each uplink signal from one cell phone causes interference (or noise) to be added to the other signals from other cell phones. Hence, if a large number of cell phones perform autonomous transmissions, the network may have problems receiving data that is coming in. *Id.* at 1:44-54. The congestion caused by these transmissions could degrade the overall ability of the network to receive scheduled transmissions. *Id.* at 1:65-67. The '850 patent introduces a novel control parameter, called a virtual TTI (virtual transmission time interval), that defines the minimum time interval between subsequent new transmissions, to help alleviate this congestion. *Id.* at 3:34-41.

B. Term No. 25 – “Predetermined Period” (Asserted Claims 1, 11, 21)

The only disputed term of the '850 patent is “predetermined period.” This term does not require construction. “Predetermined period” has a well-understood meaning to one of ordinary skill in the art – indeed, the words are common and would be easily understood by a lay juror without explanation – and in the context of the surrounding claim language, the meaning is clear. Because this term is readily understandable to a jury, the Court need not construe the term.⁴⁴

⁴⁴ *See Phillips*, 415 F.3d at 1314 (“In some cases, the ordinary meaning of claim language . . . may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.”); *see also EON Corp.*, 2012 U.S. Dist. LEXIS 165790, at *29-31 (claim terms “predetermined base station geographic area” and “predetermined geographic area” “do not require construction because their meanings are clear in the context of the claims and will be readily understandable to the jury.”) (J. Love)

Apple proposes that “predetermined period” be defined as “a time interval, the length of which is determined in advance.” There is nothing in Apple’s proposal that would aid the jury in understanding this term. To the extent there is anything in Apple’s proposal that does not comport with the plain meaning of the term “predetermined period,” Apple is adding unsupported limitations, and its proposal should be rejected on that basis. To the extent Apple is merely replacing two easily comprehensible words with eleven, its proposal will cause jury confusion rather than alleviate it and should be rejected on that basis.

X. CONCLUSION

For the reasons set out above, Core Wireless asks the Court to adopt its proposed claim constructions as set out in Exhibit 1 of the Joint Claim Construction and Prehearing Statement.

Dated: July 25, 2013

Respectfully Submitted,

By: /s/ Craig Y. Allison

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel who are deemed to have consented to electronic service. Local Rule CV-5(a)(3)(A). Pursuant to Fed.R.Civ.P. 5(d) and Local Rule CV-5(e), all other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of this document via email, facsimile and/or U.S. First Class Mail.

Dated: July 25, 2013

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